

## **ABSTRACT**

A method and system for bandwidth management in a packet-based network utilizes processing based on bandwidth management policies defined by subscribers and service providers. This method and system allow a subscriber to control the bandwidth available for sessions in near-real time and simplify provisioning at hubs and gateways by allowing the voice/data bandwidth ratio to be established independently of the provisioned bandwidth for voice and data. Bandwidth management policies are stored in the database of the service manager. When a request for modification of the maximum bandwidth parameter for an access hub is received, a mid-call event is detected or a new session is attempted by a subscriber, the service manager determines the current bandwidth utilization and whether this current bandwidth utilization exceeds the maximum bandwidth defined. If the new maximum bandwidth is exceeded, the service manager performs policy processing. Policy processing involves the retrieval of bandwidth management policies from the service manager database and the determination of the method of bandwidth reduction supported by the access hub. If forced reduction of bandwidth is supported, the bandwidth management entity identifies a current session at the access hub for bandwidth reduction and attempts connectivity modification. If successful, the call processing entity determines a new bandwidth utilization based on the reduced bandwidth and whether the new bandwidth exceeds the maximum bandwidth defined by the subscriber. If the maximum bandwidth is still exceeded, the service manager will repeats policy processing to identify another session for bandwidth reduction.